

REMARKS

ENTRY OF AMENDMENT UNDER 37 C.F.R. §1.116:

Applicant(s) request(s) entry of this Rule 116 Response because:

(a) it is believed that the amendment of claim 5 puts this application into condition for allowance as suggested by the Examiner;

(b) the amendment was not earlier presented because the Applicant(s) believed in good faith that the cited prior art did not disclose the present invention as previously claimed;

(c) the amendment of claim 5 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised; and

(d) the amendment does not significantly alter the scope of the claims and places the application at least into a better form for purposes of appeal. No new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

New Claim

As is known in the art, an interface parameter determines how a function module/block or operation is used. The Microsoft Computer Dictionary, Fourth Edition, copyright 1999 by Microsoft Corporation, defines "parameter" on page 332: "In programming, a value that is given to a variable, either at the beginning of an operation or before an expression is evaluated by a program. Until the operation is completed, a parameter is effectively treated as a constant value by the program. A parameter can be text, a number or an argument name assigned to a value that is passed from one routine to another. Parameters are used as means of customizing program operation."

On page 2 of the specification, lines 9-16, it recites:

"The structures used in a programming language, for example Step® 5 or Step® 7 (registered trademarks of SIEMENS AG), which is common for automation projects, are called function blocks or operation blocks. These blocks have interfaces, as well, via which they can be parameterized, via which specific actions can be occasioned, via which specific internal data of the block or process-related data can be interrogated, etc.

The object of the present invention is to specify a particularly user-friendly method for VDU-

based definition and parametrization of interfaces of the software components of an automation system.

For a method for VDU-based definition and parametrization of interface of the software components of an industrial automation system, the interface being a software interface having at least one interface parameter, the interface parameter being further characterized by at least one attribute, this object is achieved by making provision for display window which can be divided vertically or horizontally, the hierarchical structure of the interface parameters of the respective software components of the automations system, which parameters can be selected using a movable cursor, being displayed in a first partial window of the display window, and the at least one attribute of the selected interface parameter being displayed in a second partial window of the display window."

Lines 13-15 of page 5 of the specification recite: "FIG. 1 of the present invention shows an exemplary representation of interface 4, 4' of a function block FB 5, the interface including different data areas represented by corresponding structures." The interface parameters are divided into categories (data input, data output, temporary data, etc.).

Thus, the terminology "interface parameters" is believed to be defined clearly in the specification.

New claim 12 recites that the features of the present invention include a method for visual display unit-based definition and parameterization of a software interface of a software component of an industrial automation system, the software interface having at least one interface parameter that has at least one editable attribute, the method comprising: providing a display window which can be divided vertically or horizontally; displaying in a first partial window of the display window a hierarchical structure of the at least one interface parameter of the software component of the industrial automation system, wherein the at least one interface parameter determines use of a function block of the software interface; selecting one interface parameter using a movable cursor; and displaying in a second partial window of the display window a detail display of the selected interface parameter, the detail display including a display of at least one editable attribute of the selected interface parameter and allowing the editable attribute to be defined and parameterized.

Nothing in the prior art teaches or suggests such. It is submitted that the new claim distinguishes over the prior art.

Claim Rejections - 35 U.S.C. § 102

On pages 2-3, claims 5-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,689,662 (Nakajima et al., hereafter Nakajima).

The Examiner submits that the GUI of Nakajima comprises a divided display window with a

hierarchical structure on one side and a detailed display on the other, and argues that the objects displayed in windows 136 and 138 of FIG. 15 represent interface parameters with editable attributes.

It is respectfully submitted that the objects in windows 136 and 138 of FIG. 15 simply represent folders and their contents and that opening a folder reveals its contents, and allows additional menu items to be added, but does not set a parameter for a system.

A shell communicates with a user in an operating system by displaying a prompt, getting user input, analyzing it and performing the necessary result (internal commands). If the shell does not understand the command, it generally tries to find a file with the command name and loads it for execution, if it is executable.

In contrast, a shell extension, which is what is taught by Nakajima, enhances the shell by providing additional ways to manipulate file objects by simplifying the task of browsing through the file system and networks, or by giving the user easier access to tools that manipulate objects in the file system. Thus, a shell extension may assign an icon to each file or add commands to the context menu and file menu for a file. (see Cols. 21-22 of Nakajima)

In the present invention, interface parameters typically determine how a function module is used, e.g., may establish an additional network address for the interface or change an interface configuration. Interface parameters may control implementation of the interface. The parameter may be a control having a numeric value. The interface parameters of the present invention include editable attributes to control the implementation of the interface. Independent claim 12 specifically recites that the interface parameter determines the use of a function block of the software interface.

Claim 5, line 7, has been amended to add the terminology "of the industrial automation system" immediately following the terminology "software component" to provide patentable weight for said terminology in the body of the claim. Hence, in accordance with the Examiner's comments in his Response to Arguments, the recitation "software component of the industrial automation system" now clarifies that said process step is complete and distinguishes the present invention over the prior art.

Thus, it is respectfully submitted that amended claim 5 is not anticipated by U.S. Patent No. 5,689,662 (Nakajima) under 35 U.S.C. § 102(e). Since claims 6-11 depend from amended claim 5, claims 6-11 are deemed to be allowable over Nakajima for at least the reasons that amended claim 5 is allowable.

Reconsideration is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

A. On pages 3-5, claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,689,662 (Nakajima et al., hereinafter Nakajima) in view of Microsoft's Internet Explorer as shown by "Mastering Internet Explorer 4's Active Desktop" (Vines).

It is respectfully submitted that, as explained above, a shell displays a prompt, gets user input, analyzes it and performs the command(s). If the shell does not understand the command(s), it typically searches for a file with the command name and loads it, if it is executable, for execution.

Nakajima teaches a shell extension which adds to the performance of the shell by providing more ways to manipulate file objects to facilitate browsing, or by providing access to tools that manipulate objects in the file system. Hence, Nakajima teaches that a shell extension extends the use of the shell by assigning an icon to a file or adding commands to the context menu and file menu (see col. 21-22, Nakajima).

In contrast to the teaching of Nakajima, it is respectfully submitted that amended claim 5 utilizes interface parameters to determine use of a function module. The interface parameter is a numeric value control. Editable attributes of the present invention are interface parameters that control the implementation of the interface.

There is no teaching or suggestion of combining the Internet Explorer (Vine) with Nakajima. The genius of invention is often a combination of known elements which in hindsight seems preordained. When the art in question is relatively simple, the opportunity to judge by hindsight is particularly tempting. Consequently, the courts have advised that one needs to guard against falling victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. In determining obviousness, the invention must be considered as a whole without the benefit of hindsight, and the claims must be considered in their entirety. See W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1551, 220 USPQ 303, 312-13 (Fed. Cir. 1983); see also Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983). The courts have held that it is impermissible to use hindsight to determine obviousness, e.g., using the inventors' success as evidence that the success would have been expected. See In re Kotzab, 217 F.3d 1365, 1369, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000) (noting the importance of casting the mind back to the time of the invention to avoid the "insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher").

Hence, it is respectfully submitted that amended claim 5 of the present invention is non-obvious over Nakajima and Microsoft's Internet Explorer as shown by "Mastering Internet Explorer 4's Active Desktop" (Vines) under 35 U.S.C. §103(a). Thus, since claim 8 depends from amended claim

5, claim 8 is deemed to be allowable for at least the reasons that amended claim 5 is allowable over Nakajima and Microsoft's Internet Explorer as shown by "Mastering Internet Explorer 4's Active Desktop" (Vines) under 35 U.S.C. §103(a).

Reconsideration is respectfully requested.

B. Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,689,662 (Nakajima et al.) in view of Microsoft's Internet Explorer as shown by "Tips Windows 95: Mai 1997" (hereinafter TipWorld).

Amended claim 5 is deemed to be allowable under 35 U.S.C. §103(a) over Nakajima as described above.

It is respectfully submitted that there is no teaching or suggestion of combining U.S. Patent No. 5,689,662 (Nakajima et al.) and TipWorld. As described more fully above, the courts have held that hindsight is impermissible to suggest combining references.

Thus, since claim 10 depends from amended claim 5, claim 10 is deemed to be allowable under 35 U.S.C. §103(a) over Nakajima and Tipworld for at least the reasons that amended claim 5 is allowable over Nakajima and Tipworld under 35 U.S.C. §103(a).

Reconsideration is respectfully requested.

C. Claim 11 is rejected as being unpatentable over U.S. Patent No. 5,689,662 (Nakajima et al.), in particular with respect to FIG. 15.

Amended claim 5 is deemed to be allowable under 35 U.S.C. §103(a) over Nakajima as described above.

Thus, since claim 11 depends from amended claim 5, claim 11 is deemed to be allowable under 35 U.S.C. §103(a) over Nakajima for at least the reasons that amended claim 5 is allowable over Nakajima under 35 U.S.C. §103(a).

Reconsideration is respectfully requested.

Thus, in accordance with the foregoing, claim 5 has been amended and new claim 12 has been added. Claims 5-12 are pending and are under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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